

TESTIMONY OF REP. TOM UDALL
BEFORE THE
SUBCOMMITTEE ON ENERGY AND AIR QUALITY
UNITED STATES HOUSE OF REPRESENTATIVES
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Mr. Chairman, Ranking Member Boucher and members of the Energy and Air Quality Subcommittee, I thank you for holding a hearing on the important and urgent matter of Peak Oil. Mr. Bartlett and I started the House Peak Oil Caucus to bring immediate and serious attention to this problem. I hope that this hearing will be the start of many such discussions that will ultimately lead to legislative action to mitigate this inevitable crisis.

The theory of Peak Oil states that, like any finite resource, oil will reach a peak in production after which supply will steadily and sharply decrease. In 1956, Shell Oil geologist M. King Hubbert predicted that oil production in the contiguous United States would peak in about 1970 and be followed by a sharp decline. At the time, many dismissed his predictions as false, but history shows they were remarkably accurate. A growing number of geologists, economists and politicians now agree that the peak in the world's oil production is imminent; predicted to occur within one or two decades. Some disagree with this prediction, calling it a doomsday scenario and say that technological advances will buy us more time before we reach peak production. Theirs, however, is not the consensus view and even they agree that a peak in the world's oil production is inevitable. I am here today to stress how important it is for the United States to take action concerning our oil and natural gas supplies. Our economy, and way of life for that matter, is currently dependent on cheap oil. Oil and natural gas literally transport, heat and feed our country. Therefore, we must act immediately to prepare for and mitigate the

economic recession and social and political unrest that will undoubtedly accompany the upcoming peak in oil and natural gas production.

The strongest evidence that the peak in world oil production is imminent is that for the last thirty years, production of oil has exceeded discovery of new oil resources. The reason for this is relatively simple. Oil is a limited commodity and the large oil fields with easily extractable resources were naturally the first ones to be exploited. These fields were found thirty or forty years ago in the Middle East (Saudi Arabia, Iraq, Iran and the United Arab Emirates) and are still the main suppliers of the world's oil. As the finite supply of oil in these deposits diminishes, exploration for new supplies continues. However, new discoveries tend to be small and rapidly exhausted, making them less economically viable.

Meanwhile, global demand for oil, which is at an all time high, continues to rise. The United States demand continues to increase by about 2% per annum. Also, with the globalization of the market economy and increases in oil-driven industrial production in Asia, new consumers are contributing to rising demand. To meet rising demand oil companies must increase production, accelerating us towards the peak. Demand has increased faster than production and the once substantial cushion between world oil production and demand has decreased. This phenomenon has increased the price of oil and consequently huge amounts of American money, up to \$25 million per hour goes abroad to pay for foreign oil. And as many people have now become increasingly aware, some of this money goes to governments and groups who are considered a threat to our national security.

The United States only possesses 2% of the world's oil reserves and only produces 8% of the world's oil capacity. Therefore, we are not in a position to control the world's oil production. However, we can significantly decrease demand. The United States consumes 25% of the world's oil. Of that 25%, two-thirds is used for transportation. Hence, transportation in the United States accounts for 16.5% of the world's oil consumption. It is obvious that more efficient transportation is the key in reducing our demand for oil. For example, a modest increase in fuel efficiency of our automobile fleet from 25 miles per gallon to 33 miles per gallon using existing technology would decrease our demand for oil by 2.6 million barrels a day or about 950 million barrels per year. These simple changes would account for a significant percentage of the oil we import each year. However, the turnover rate for automobiles in our country is 10-15 years. This means we must start immediately to avoid reaching the peak in world oil production before actions such as higher CAFE standards make a difference.

Some say that market forces will take care of the peak oil problem. They argue that as we approach or pass the peak of production, the price of oil will increase and alternatives will become more competitive. Following this, consumers will act to replace our need for non-petroleum energy resources. This philosophy is partly true. However, the main problem with this argument is that current U.S. oil prices do not accurately reflect the full social costs of oil consumption. Currently, in the United States, federal and state taxes add up to about 40 cents per gallon of gasoline. A World Resources Institute analysis found that fuel-related costs not covered by drivers are at least twice that much. The current price of oil does not include the full cost of road maintenance, health and

environmental costs attributed to air pollution, the financial risks of global warming from increasing carbon dioxide emissions or the threats to national security from importing oil. Because the price of oil is artificially low, significant private investment in alternative technologies that provide a long-term payback does not exist. Until oil and its alternatives compete in a fair market, new technologies will not thrive.

Oil is a very powerful resource with an incredibly high energy density. For example, the energy in just one barrel of oil is equivalent to eight people working full time for a year. Over the past 100 years, fueled by affordable oil, the United States has led a revolution in the way the world operates. For example, petroleum-based fertilizers are used to inexpensively grow remarkable amounts of food and airline transportation allows us to reach virtually anywhere in the world within 24 hours helping to create a global economy. However, the sustainability of the oil-based economy is rapidly decreasing. Reaching a peak in oil production has the potential to destroy our economy and cause great social and political unrest. Also, the carbon released using fossil fuels is contributing to dramatic changes in the earth's climate. Therefore, replacing this resource in a relatively short time is not only an incredible challenge but also imperative to the survival of our way of life. The United States has faced such challenges in the past. In response to great challenges and imminent threats, we pooled our resources and ingenuity to build an atomic bomb in just a few years and put a man on the moon in a decade. We can and must do this again.

To reduce and potentially eliminate our dependence on foreign oil and develop a new economy based on clean, renewable energy, we need a major investment in research for both basic and applied science similar in scope to the ones we have made in the past.

We must develop and implement policy immediately that inspires our citizens to make sacrifices now that will ensure our future prosperity. The sooner we start, the smaller those sacrifices will be. We must produce effective policies that create a new generation of scientists devoted to changing the way we produce energy. These tasks will not be easy, but I am confident that we will achieve our goal, for we have little alternative.

Thank you once again for holding this hearing and inviting me to testify. I welcome any questions the committee may have.